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## The genus *Lomographa* Hübner (Lepidoptera, Geometridae) from Taiwan, with descriptions of three new species

Katsumi YAZAKI

2-5-20, Motoyokoyama, Hachioji, Tokyo, 192 Japan

**Abstract** Taiwanese species of *Lomographa* Hübner are reviewed. Three new species, *L. rara*, *L. guttulata* and *L. percnosticta*, are described. Moths and genitalia of all the species are figured.

**Key words** Lepidoptera, Geometridae, *Lomographa*, taxonomy, Taiwan.

The ennomine genus *Lomographa* Hübner, [1825] is known to be represented in Eurasia and N. America with about 40 species, most of which are found in temperate and tropical Asia. From Taiwan six species, of which two were described from Taiwan, were listed in Inoue (1992). Most species of this genus having only a simple maculation on the white wings resemble each other, sometimes being difficult to distinguish by appearance. Accordingly, there have been some confusion about the identifications of species in the past. I have examined a long series of *Lomographa* specimens from Taiwan, and have compared them with some type specimens preserved in MAKB and BMNH. In this paper I will enumerate ten species of this genus from Taiwan, of which three are recorded here for the first time and three are described as new to science.

The following abbreviations are used to indicate the location of type material. BMNH: British Museum (Natural History), London. NSMT: National Science Museum, Tokyo. MAKB: Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn. HI: Hiroshi Inoue. KY: Katsumi Yazaki.

### *Lomographa inamata* (Walker) (Fig. 1)

*Acidaria inamata*: Walker, 1861, *List Specimens lepid. Insects Colln Br. Mus.* 22: 755.

*Noreia inamata*: Moore, 1887, *Lepid. Ceylon* 3: 406.

*Leucetaera inamata*: Warren, 1894, *Novit. zool.* 1: 406.

*Bapta inamata*: Swinhoe, 1894, *Trans. ent. Soc. Lond.* 1894: 193.

*Bapta (Leucetaera) inamata*: Wehrli, 1939: 298

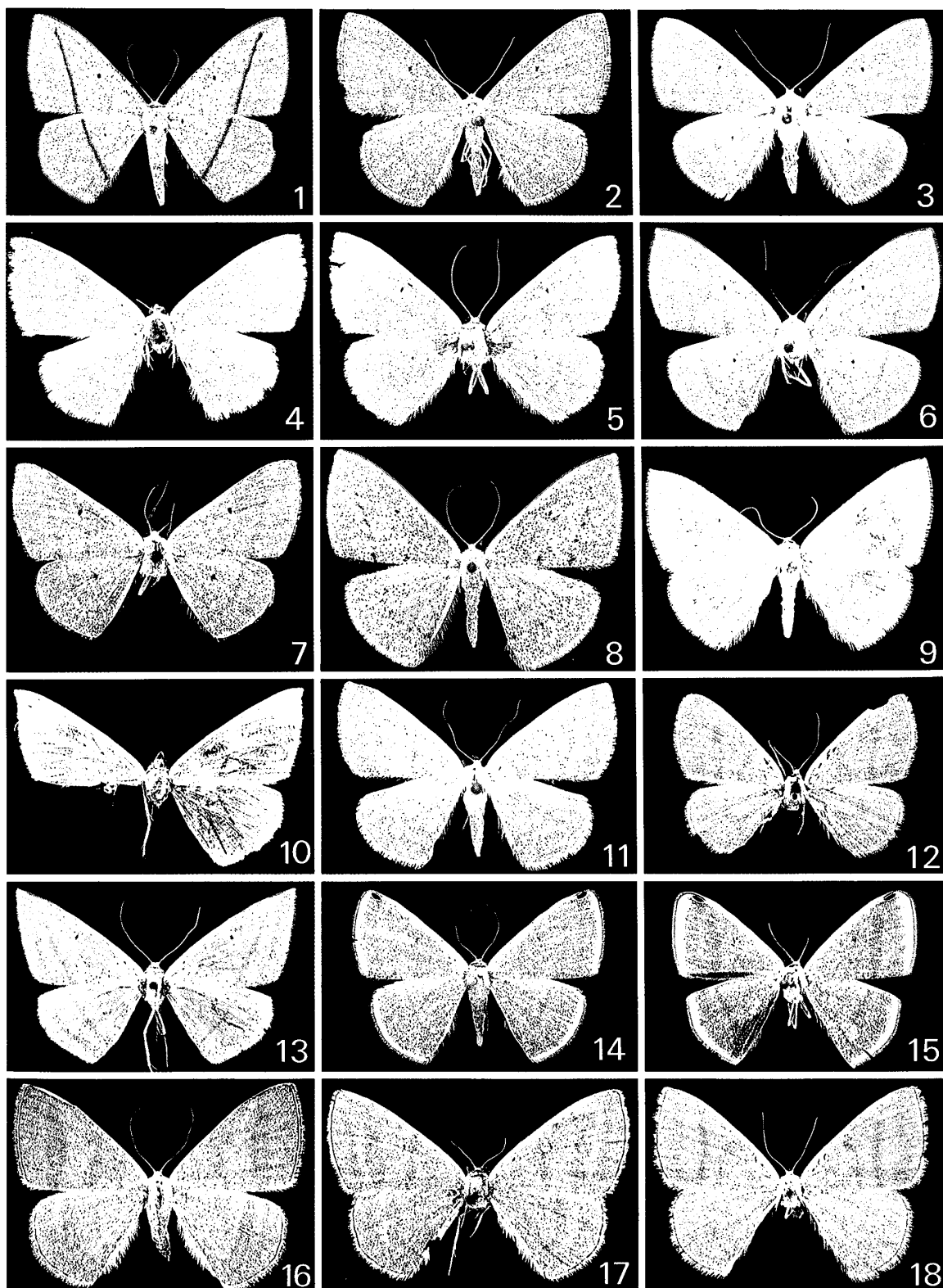
*Lomographa inamata*: Inoue, 1977, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* 13: 283.

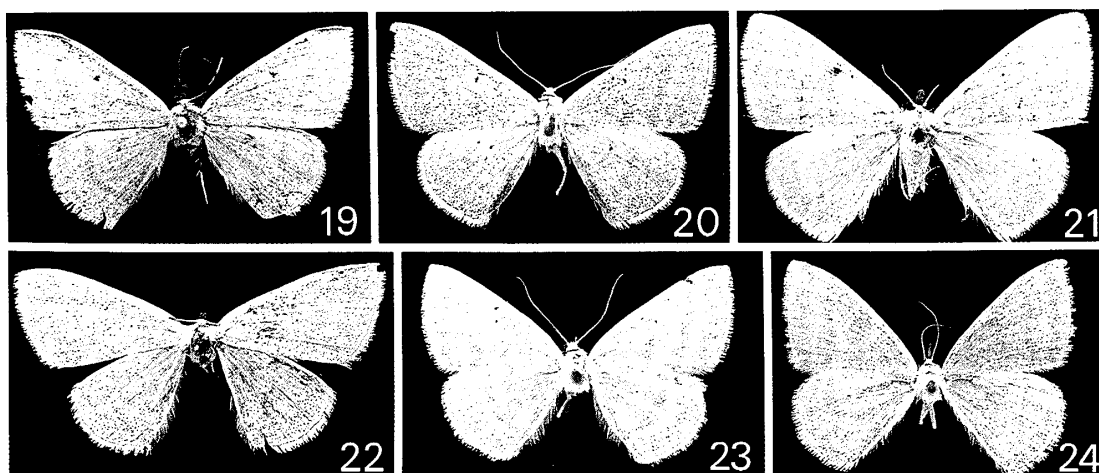
*Acidaria simpliciaris* Walker, 1861, *List Specimens lepid. Insects Colln Br. Mus.* 23: 793.

This is an unmistakable species, with a straightish ochreous postmedian line on both wings which are creamy white, irrorated with dark ochreous.

Male genitalia (Fig. 25). Valva tapered towards round apex, bearing a small, thinly sclerotized lobe subapically below costa. Aedeagus vesica bearing three bunches of cornuti as figured.

Female genitalia (Fig. 41). Ductus bursae long, membranous in posterior half, sclerotized and ribbed in anterior half, somewhat dilated towards anterior end. Corpus bursae ovate, scattered densely with spines in posterior two-thirds.





Figs 19-24. Type specimens of *Lomographa* spp. 19. *Cabera margarita* Moore, lectotype ♂, India. 20. *Bapta anoxys* Wehrli, lectotype ♂, China. 21. *Bapta phaedra* Wehrli, holotype ♂, China. 22. *Bapta ochrilinea* Warren, holotype ♀, China. 23. *Bapta lungtanensis* Wehrli, lectotype ♂, China. 24. *Bapta asynapta* Wehrli, lectotype ♂, China.

Specimens examined. Nantou Hsien, Lushan Spa (1,200 m): 3 ♂ 3 ♀, 4-6. viii. 1974 (H. Nakajima): 2 ♂, 24-27. viii. 1983 (H. Yoshimoto); 4 ♂ 3 ♀, 30. vii-1. viii. 1984 (K. Yazaki). Chiayi Hsien, Mt. Alishan (2,200 m): 1 ♂, 2-5. viii. 1984 (K. Yazaki). Chiayi Hsien, Shiht-zulu (1,520 m): 1 ♀, 5-6. v. 1984 (H. Yoshimoto).

Distribution. Sri Lanka, India, Japan, Taiwan.

This species had been known to be distributed widely in the Oriental Region until Holloway (1993) separated *L. luciferata* (Walker, 1862), ranging from Peninsular Malaysia to New Guinea, from *inamata* as an independent species.

### *Lomographa margarita* (Moore) (Fig. 2)

*Cabera margarita* Moore, 1868, *Proc. zool. Soc. Lond.* **1867**: 647.

*Bapta mytilata*: Prout, 1914, *Ent. Mitt.* **3**: 249 (nec Guenée, 1857).

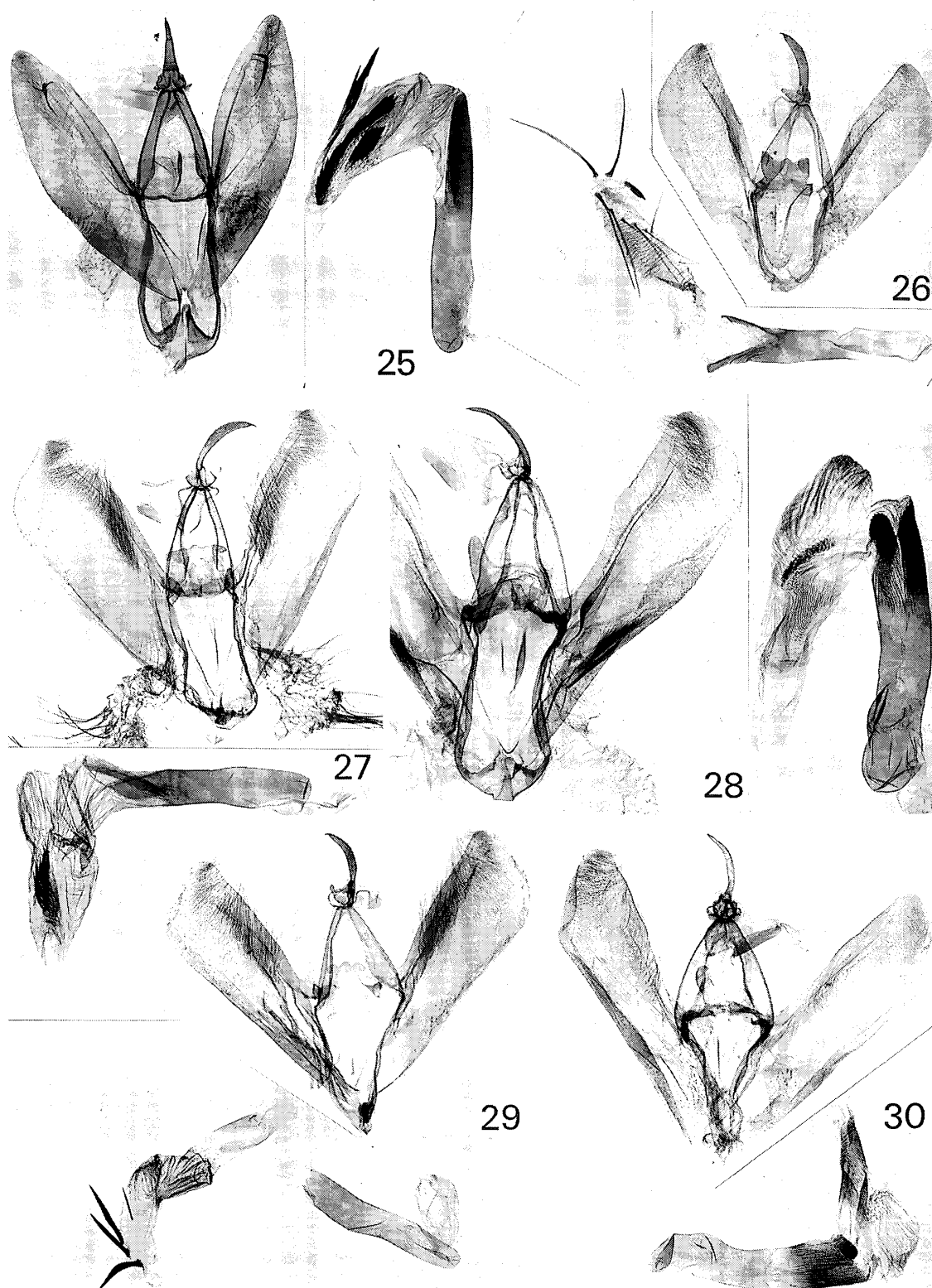
*Lomographa griseola*: Bastelberger, 1909, *Dtsch. ent. Zeit. Iris* (Dresden) **22**: 176 (nec Warren, 1893).

*Bapta conspersa* Wileman, 1914, *Entomologist* **47**: 201. **Syn. n.**

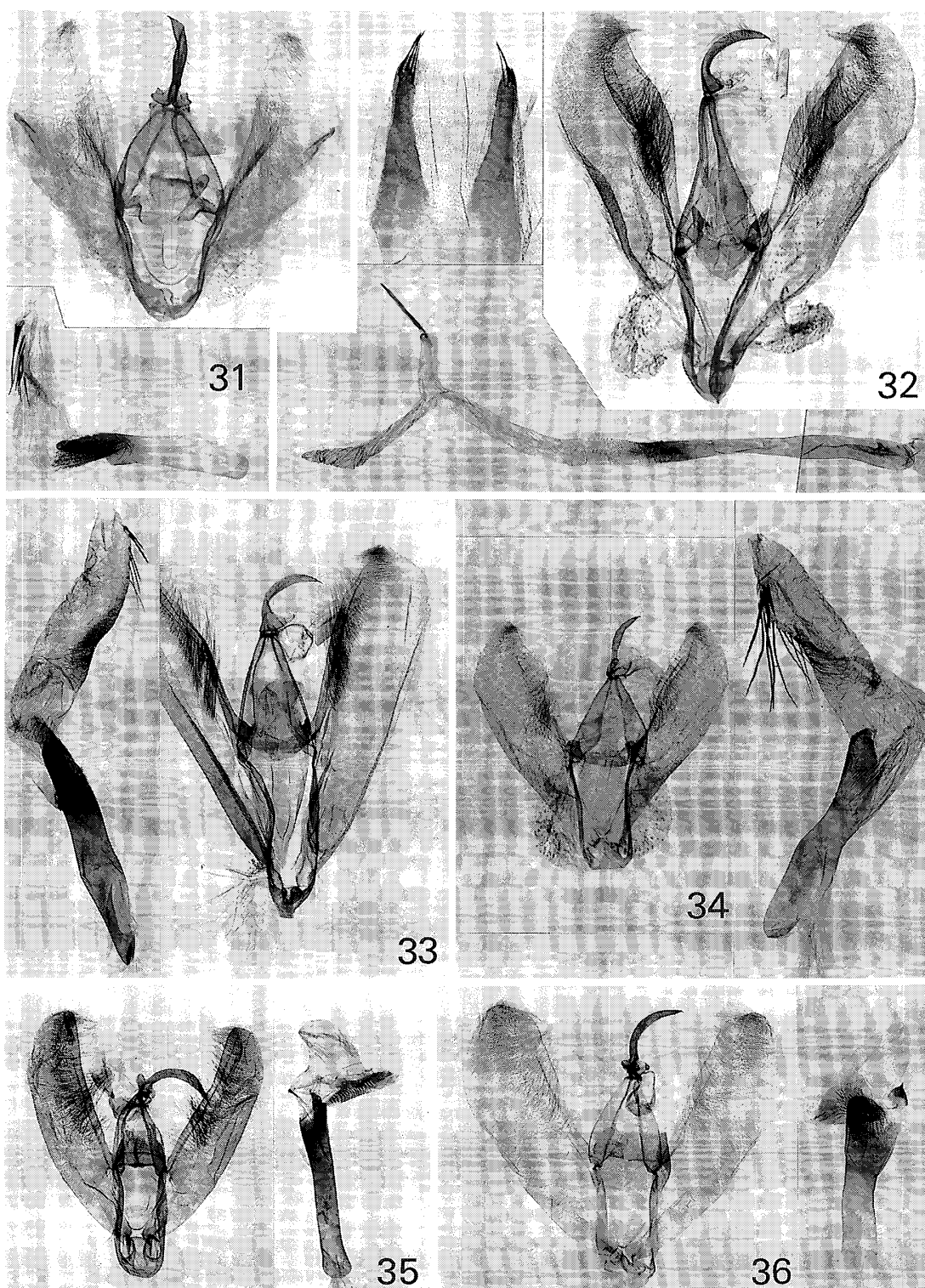
*Lomographa conspersa*: Inoue, 1992, in Heppner & Inoue (ed.). *Lepid. Taiwan* **1** (2): 112.

Wings densely irrorated with fuscous. Forewing with antemedian fascia slender, oblique, curved outwards, vanished towards costa; postmedian fascia slightly arched outwards;

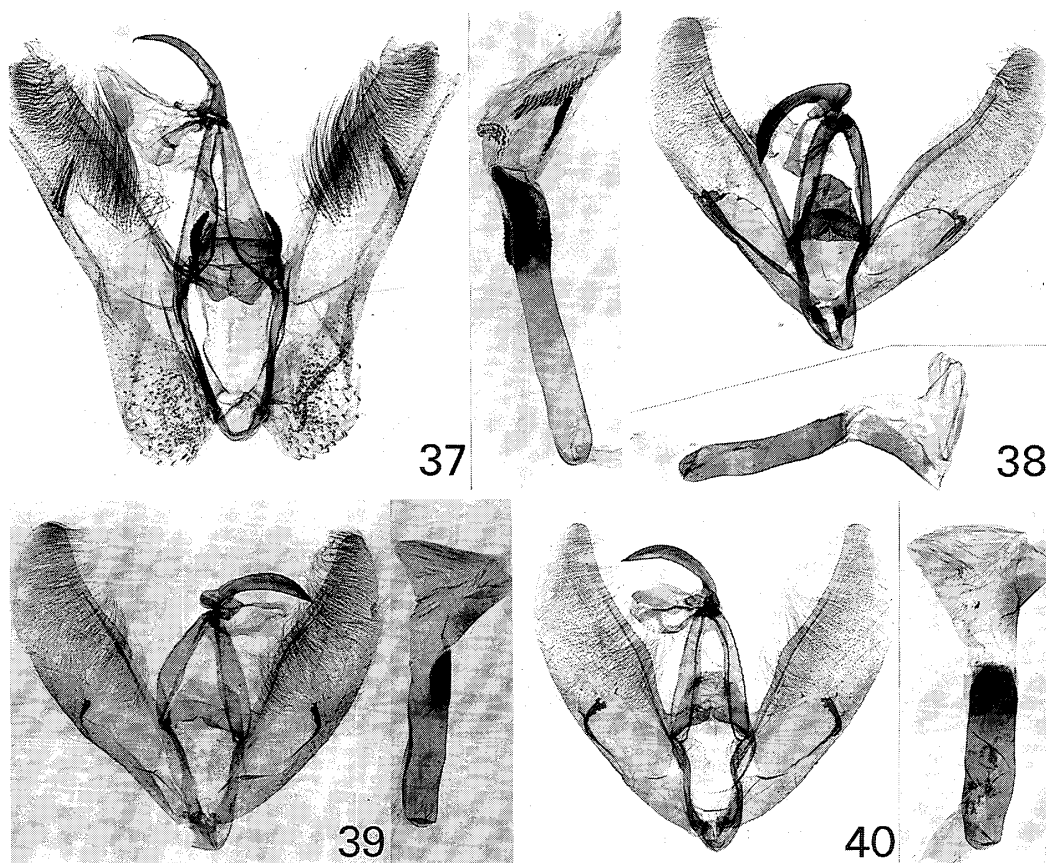
Figs 1-18. *Lomographa* spp. 1. *L. inamata* (Walker), ♂. 2. *L. margarita* (Moore), ♂. 3. *L. anoxys* (Wehrli), ♂. 4. *L. distans* (Warren), holotype ♀, [China]. 5. *L. epixantha* (Wehrli), lectotype ♂, China. 6. *L. claripennis* Inoue, ♀. 7. *L. rara* sp. n., holotype ♂. 8. *L. guttulata* sp. n., holotype ♂. 9. *Ditto*, paratype ♂, China. 10. *L. perapicata* (Wehrli), ♂. 11. *L. lungtanensis* (Wehrli), ♂. 12. *L. tapaishana* (Wehrli), lectotype ♂, China. 13. *L. perapicata* (Wehrli), holotype ♂, China. 14. *L. percnosticta* sp. n., holotype ♂. 15. *L. atrinotapex* (Joannis), ♂, Thailand. 16. *L. platyleucata marginata* (Wileman), ♀. 17. *Ditto*, holotype ♀ of *Bapta poliotaeniata* Wehrli, China. 18. *L. platyleucata asynapta* (Wehrli), paralectotype ♀, China.



Figs 25-30. Male genitalia of *Lomographa* spp. 25. *L. inamata* (Walker). 26. *L. margarita* (Moore). 27. *L. anoxys* (Wehrli). 28. *L. epixantha* (Wehrli), lectotype, China. 29. *L. claripennis* Inoue, Japan. 30. *L. rara* sp. n., holotype.



Figs 31 - 36. Male genitalia of *Lomographa* spp. 31. *L. guttulata* sp. n., paratype. 32. *L. lungtanensis* (Wehrli), lectotype, China. 33. *L. subspersata* (Wehrli), Japan. 34. *L. tapaishana* (Wehrli), lectotype, China. 35. *L. percnosticta* sp. n., paratype. 36. *L. atrinotapex* (Joannis), Thailand.



Figs 37-40. Male genitalia of *Lomographa* spp. 37. *L. perapicata* (Wehrli), holotype, China. 38. *L. platyleucata marginata* (Wileman). 39. *L. platyleucata asynapta* (Wehrli), lectotype, China. 40. *L. platyleucata platyleucata* (Walker), Nepal.

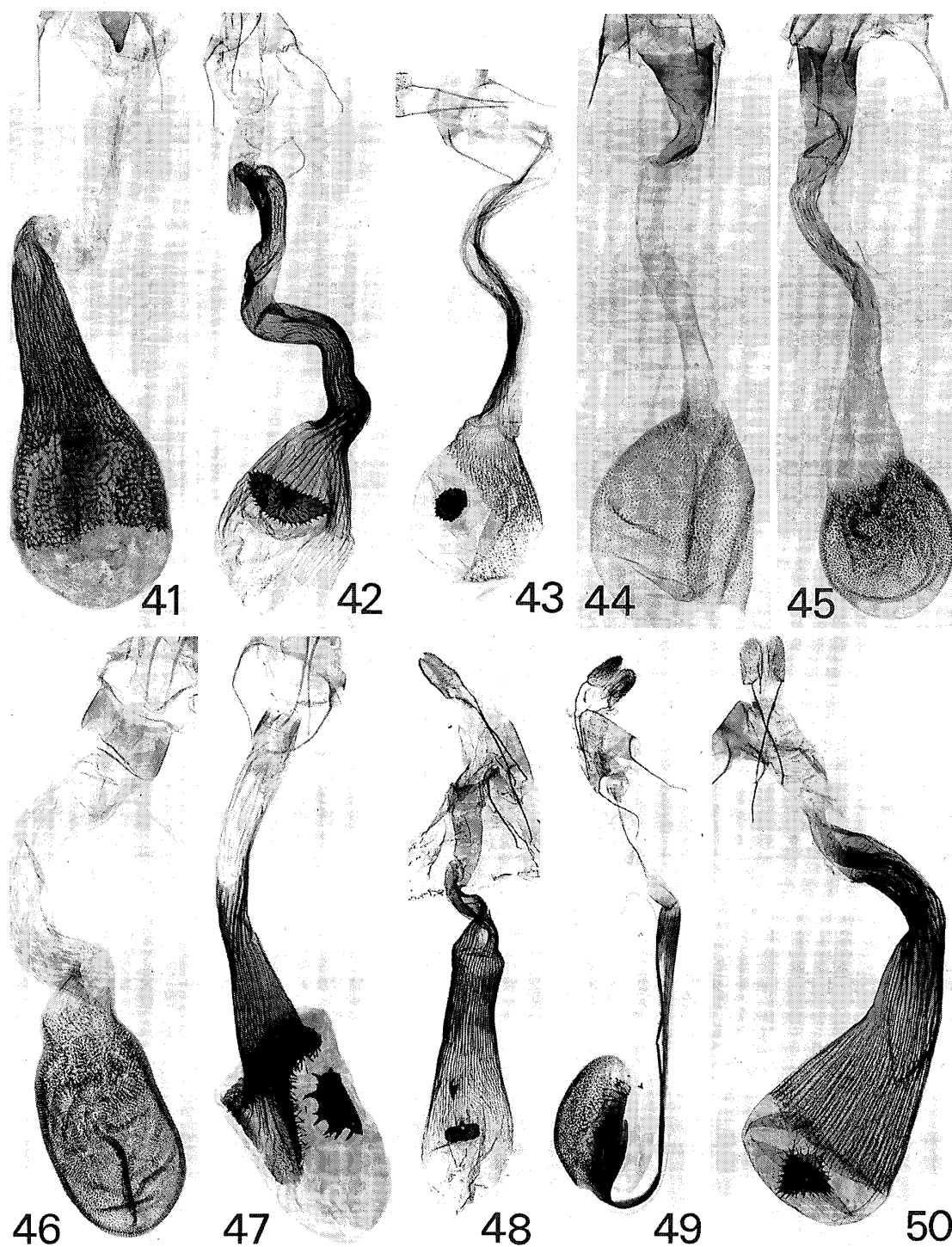
discal dot dark grayish, relatively large. Hindwing with postmedian fascia slender; discal dot rather small.

Male genitalia (Fig. 26). Valva rather short. Posterior margin of juxta lobed bilaterally, roundly produced mesally. Aedeagus vesica elongate, with 7-8 long spines and an apical short cornutus. Eighth sternite with a pair of long lateral processes.

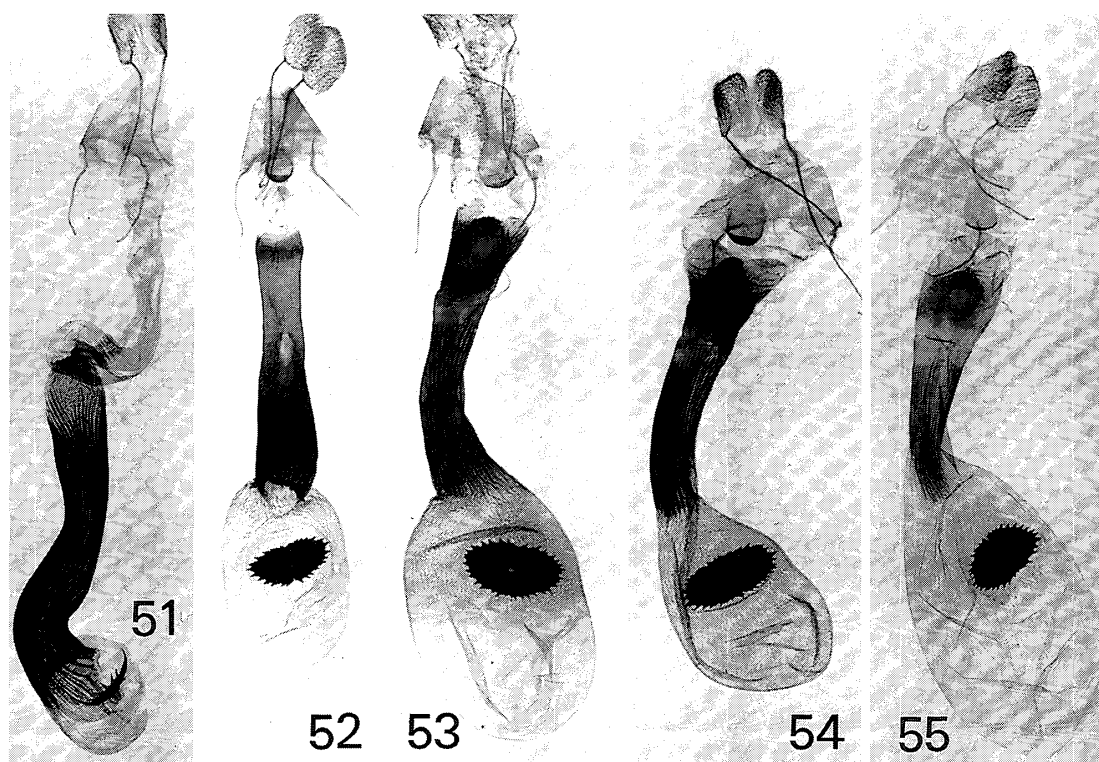
Female genitalia (Fig. 42). Ductus bursae elongate, sclerotized and ribbed except posterior fifth which is membranous. Corpus bursae roundish; signum elongate with serrate margin.

Specimens examined. Lectotype ♂ of *margarita* (Fig. 19), here designated, "Bengal/Type/Cabera margarita Moore, Type/Moore Coll. 94-106/Geometridae genitalia slide No. 16643 ♂", in BMNH. Taipei Hsien, Mt. Lalashan: 10 ♂ 3 ♀, vii. 1968. Nantou Hsien, Lushan Spa (1,200 m): 1 ♂ 1 ♀, 23-24. iii. 1981 (H. Yoshimoto); 1 ♂, 7-9. xi. 1983 (K. Yazaki). Nantou Hsien, Sungkang (2,000 m): 1 ♀, 31. v. 1965 (T. Shirôzu). Taichung Hsien, Lishan (2,000 m): 1 ♀, 22. vii. 1968 (H. Fukuda). Taichung Hsien, Mt. Shüehshan, Chika-shan-chuang (2,460 m), 1 ♂, 29. vi. 1989 (M. Owada). Hualien Hsien, Tayuling (2,600 m): 1 ♂, 23-26. vii. 1981 (R. Sato); 1 ♂, 12. vi. 1988 (S. Sugi); 1 ♂, 25. ix. 1992 (Aulombard & Plante). Chiayi Hsien, Mt. Alishan (2,200 m): 1 ♂, 11-13. viii. 1974 (H. Nakajima); 1 ♂, 27. iii. 1977 (Y. Kishida); 1 ♀, 2-5. viii. 1984 (K. Yazaki). Pingtung Hsien, Kenting, 1 ♀,





Figs 41-50. Female genitalia of *Lomographa* spp. 41. *L. inamata* (Walker). 42. *L. margarita* (Moore). 43. *L. anoxys* (Wehrli). 44. *L. distans* (Warren), holotype, [China]. 45. *Ditto*, holotype of *Bapta ochrilinea* Warren, China. 46. *L. epixantha* (Wehrli), paralectotype, China. 47. *L. claripennis* Inoue. 48. *L. guttulata* sp. n., paratype. 49. *L. lungtanensis* (Wehrli). 50. *L. subspersata* (Wehrli), Japan.



Figs 51-55. Female genitalia of *Lomographa* spp. 51. *L. tapaishana* (Wehrli), paralectotype, China. 52. *L. percnosticta* sp. n., paratype. 53. *L. platyleucata margarita* (Wileman). 54. Ditto, holotype of *Bapta poliotaeniata* Wehrli, China. 55. *L. platyleucata asynapta* (Wehrli), paralectotype.

12. viii. 1970 (Y. Shibata).

Distribution. India, Taiwan.

An examination of the lectotype of *margarita* has proved that *Bapta conspersa* Wileman described from Taiwan (a photograph of a male syntype taken by Dr H. Inoue examined) is conspecific with *margarita*.

*Lomographa griseola* (Warren, 1893), described from India, is the most similar species to *margarita*, but is distinguished from the latter by rather broad postmedian fascia and clearer discal dot on both wings. The male and female genitalia of *griseola* (see Yazaki, in preparation) are widely different from those of *marginata*. Although Bastelberger (1909) recorded *griseola* from Taiwan, I have found no specimen of it among a number of specimens of *Lomographa* secured from Taiwan. Consequently *griseola* of Bastelberger (1909) seems to be an misidentification of *margarita*.

### ***Lomographa anoxys* (Wehrli) (Fig. 3)**

*Bapta anoxys* Wehrli, 1936, *Ent. Rdsch.* **53**: 514, fig. 5.

*Lomographa distans*: Inoue, 1992, in Heppner & Inoue (ed.), *Lepid. Taiwan* **1**(2): 112 (nec Warren, 1894).

*Bapta phaedra* Wehrli, 1936, *Ent. Rdsch.* **53**: 563. **Syn. n.**

*Lomographa laurentschwartzii* Herbulot, 1992, *Bull. Soc. ent. Mulhouse* **1992**: 8, fig. **Syn. n.**

Somewhat larger than *margarita*. Both wings less densely irrorated with fuscous than in



*margarita*; antemedian fascia untraceable; postmedian fascia straightish, often obsolete in some specimens; discal dot blackish, distinct, but sometimes vanished in some specimens.

Male genitalia (Fig. 27). Valva elongate, broad; costa straightish or slightly swollen at middle. Juxta elongate; posterior margin lobed bilaterally, roundly produced mesally. Coremata long, with long fine hair. Aedeagus vesica with a row of 7-10 stout spines.

Female genitalia (Fig. 43). Ductus bursae elongate, membranous, with a thin, sclerotized belt-like sclerite. Corpus bursae roundish, densely scattered with short spines laterally in posterior portion; signum relatively small, round with serrate margin.

Specimens examined. Lectotype ♂ of *anoxys* (Fig. 20), here designated, "China, Provinz Hunan, Hoeng-Shan (900 m), 18. 3. 1993, H. Höne/Genitalia slide KYS-1046", in MAKB. Holotype ♂ of *phaedra* (Fig. 21), "Siao-Lou, Chasseurs indigènes, du P. Dejean, 1901/Bapta phaedra Wehrli, Holotype/5870 ♂", in MAKB. Paratype ♂ of *phaedra*, "Khasis", in MAKB. Taoyuan Hsien, Shang Paling (1,400 m), 1 ♀ (i). Taoyuan Hsien, Mt. Lalashan, 3 ♂ (vi). Taichung Hsien, Lishan (2,000 m), 1 ♂ 1 ♀ (vii). Nantou Hsien, Lushan Spa (1,200 m), 14 ♂ 6 ♀ (iii, vii-viii). Nantou Hsien, Wushe (1,100 m), 4 ♂ 1 ♀ (vii-viii). Nantou Hsien, Yushih, 1 ♂ (viii). Hualien Hsien, Tayuling (2,600 m), 1 ♀ (v). Hualien Hsien, Losao (1,110 m), 2 ♂ (iv). Chiayi Hsien, Mt. Alishan (2,200 m), 14 ♂ 4 ♀ (iii-iv, vii-viii). Chiayi Hsien, Shihtzulu (1,520 m), 6 ♂ 2 ♀ (vii). Chiayi Hsien, Fenchifu (1,400 m), 2 ♂ (viii). Taitung Hsien, Chiepen Spa (200 m), 1 ♂ (iii).

**Distribution.** India, Nepal, China, Thailand, Taiwan, Peninsular Malaysia, Philippines.

This is the commonest species in Taiwan as well as in the Himalayas. It is suspected that there has been a confusion of the understanding for this species and *Lomographa distans* (Warren), which has been considered to range widely from N.W. Himalaya through China to Taiwan, in the senior authors. So far as my investigation on *Lomographa* species from Asia, *distans* seems to be distributed locally in China, and *anoxys* may have hitherto been erroneously regarded as *distans* by almost all the students.

*Bapta anoxys* was described upon nine males and two females from China by Wehrli (1936), and in the same paper *B. phaedra* was described upon four males from China and India. It has been proved by an examination of the syntypes of *anoxys* that they are a mixture of several taxa. Among them one female bears "Holotype" label, and only one male bears "Paratype" label. It has appeared that the "Holotype" female and "Paratype" male belong to a single species by a comparison with the Taiwanese taxon formerly considered as "*distans*". Moreover the "Paratype" male is apparently conspecific with the holotype of *phaedra*. As I select the "Paratype" male as lectotype by following the advice of Dr D. Stüning, *anoxys* becomes conspecific with *phaedra*. I use *anoxys* as valid name because the lectotype of *anoxys* is in better condition than the holotype of *phaedra*.

The above synonymy of *Lomographa laurentschwartzi* Herbulot, described from Taiwan, with *anoxys* is evident from the figure of the male genitalia in the original description.

The following specimens of *anoxys* secured from outside of Taiwan were examined. India — Punjab, Simla (2,500 m), 1 ♂ 1 ♀; Kumaon, Bhimtal, 1 ♀; Darjeeling (2,000 m), 7 ♂ 4 ♀; W. Sikkim, Yuksam (1,780 m), 1 ♂. Nepal — Kathmandu: Godavari (1,600 m), 4 ♂ 4 ♀; Mt. Phulchouki (2,075 m), 3 ♂. Gandaki, Naudanda (1,470 m), 1 ♀. Thailand —

Chiang Mai: Doi Angkhang (1,350 m), 2 ♀; Doi Inthanon (1,300 m), 3 ♂ 1 ♀. China — Chekiang: W. Tien-mu-shan (1,600 m), 2 ♂ 1 ♀; E. Tien-mu-shan (1,500 m), 1 ♀; Moku-shan, 1 ♂. Peninsular Malaysia — Pahang, G. Berinchang (1,950 m), 1 ♀. Philippines — Luzon: Mt. Puguis (1,900 m), 1 ♀; Mt. Data (2,250 m), 1 ♂.

*Bapta distans* Warren was described from [China] (stated erroneously as Japan; see Prout, 1926: 785) on the basis of one female. The holotype of *distans* (Fig. 4) is similar to *anoxys* in appearance, and is separable only by having more indistinct postmedian fascia and vestigial discal dot on the forewing. The female genitalia (Fig. 44) are widely different from those of *anoxys*: ostium bursae sclerotized; ductus bursae membranous; corpus bursae rather large, fully scattered with shorter spines; signum wanting. Although the name *distans* is well-known to students, I have found no specimen of it among the Asian *Lomographa* specimens other than the holotype except one female mentioned below.

On the other hand *Bapta ochrilinea* Warren, 1894 (Fig. 22) was described from China upon one female in the same paper as *distans*. The female genitalia (Fig. 45) clearly show *ochrilinea* to be conspecific with *distans*. Therefore I treat *ochrilinea* as a junior synonym of *distans* (**syn. n.**), since the name *distans* has been cited more frequently than *ochrilinea*. The male specimen (examined) illustrated as *ochrilinea* by Wehrli (1939: pl. 23, row c) lacks abdomen, but as it has distinct postmedian fascia on the forewing it seems to belong to *anoxys* or another undescribed species. Type material examined are as follows. Holotype ♀ of *distans*, "Japan/W. China presumably/Bapta distans Warr., Type ♀/Type/Geometridae genitalia slide 9674 ♀/Rothschild Bequest B. M. 1939-1", in BMNH. Holotype ♀ of *ochrilinea*, "China/Bapta ochrilinea Warr., Type ♀/Rothschild Bequest B. M. 1939-1/Geometridae genitalia slide 16644 ♀", in BMNH.

Another taxon being similar and related to *anoxys* is *Bapta epixantha* Wehrli, 1936 (Fig. 5) from Chekiang, China. It is characterized by larger size, rather brownish irroration on the wings, and somewhat sinuated postmedian fascia on the forewing. The male genitalia are distinctive as in Fig. 28. The female genitalia (Fig. 46) are rather similar to those of *distans* than to those of *anoxys*. Ostium bursae is broader and more thinly sclerotized than in *distans*. Ductus bursae is broader. Corpus bursae is more elongate and more densely scattered with spines. Specimens of *epixantha* examined are as follows. Lectotype ♂, here designated, "Chekiang, West Tien-Mu-Shan (1,600 m), 8. 6. 1932, H. Höne/Bapta epixantha Wehrli, ♂ Type/Genitalia slide KYS-1050", in MAK. Paralectotypes: same locality and collector, 1 ♀, 11. vi. 1932; 1 ♀, 1. vi. 1932.

### ***Lomographa claripennis* Inoue (Fig. 6)**

*Lomographa claripennis* Inoue, 1977, *Bull. Fac. domest. Sci. Otsuma Wom. Univ.* **13**: 322, fig. 54.

Distinguished from *anoxys* by much darker frons, rather slender and more conspicuous postmedian fascia on both wings, and larger and more prominent discal dot on hindwing.

Male genitalia (Fig. 29). Very similar to those of *anoxys*, but distinguished by smaller lateral lobe at posterior margin of juxta. Aedeagus with cornuti consisting of three stout spines and a shorter, slender one.

Female genitalia (Fig. 47). Ductus bursae membranous in posterior half, sclerotized and ribbed in anterior half. Corpus bursae ovate, membranous, sclerotized and scattered with spines laterally in posterior half; signum stellate.

Specimens examined. Taoyuan Hsien, Shang Paling (1,400 m), 1 ♀, 14. i. 1993 (K. Yazaki). Hsinchu Hsien, Mt. Shitoushan, 1 ♀, 9-10. viii. 1983 (R. Sato).

Distribution. Japan, Taiwan.

This species was described from Japan, and was recorded here for the first time from Taiwan.

***Lomographa rara* sp. n.** (Fig. 7).

Expanse 28 mm. Wings rather densely irrorated with brownish fuscous. Forewing with antemedian fascia gently curved outwards, indistinct towards costa; postmedian fascia slightly curved outwards; discal dot large, conspicuous. Hindwing with postmedian fascia and discal dot as in forewing.

Male genitalia (Fig. 30). Uncus rather slender. Valva with costa straightish. Juxta deeply bilobed posteriorly. Aedeagus ribbed and scobinated in apical fourth; vesica thinly sclerotized in ventro-apical portion, without cornutus.

Holotype. ♂, Nantou Hsien, Sungkang (2,000 m), 31. v. 1965 (T. Shirôzu), in HI.

Distribution. Taiwan.

This species is similar and related to *L. araeophragma* (Prout) from Borneo (for the figure of moth and male genitalia see Yazaki, in preparation). In appearance *rara* is distinguished from *araeophragma* by larger size (expanse 24-26 mm in *araeophragma*) and larger and more conspicuous discal dot on both wings. In the male genitalia of *araeophragma*, the uncus is stouter, and the costal margin of valva is raised dorsally at middle.

***Lomographa guttulata* sp. n.** (Figs 8, 9)

Expanse 29-31 mm in Taiwanese specimens, 25-28 mm in Chinese specimens. Frons brown with a slender white band along ventral margin. Wings rather broad, pointed at apex. Forewing with costa rather broadly covered with fulvous; postmedian fascia represented by a row of blackish dots; discal dot blackish, relatively large, conspicuous; cilia with distal margin ochreous. Hindwing with postmedian fascia and cilia as in forewing; discal dot vestigial.

Male genitalia (Fig. 31). Valva broad; costa raised dorsally at middle; sacculus broad, thinly sclerotized, bearing a digitate process at dorso-distal extremity. Posterior margin of juxta nearly even mesally, with a pair of roundish lateral lobes. Aedeagus vesica with a row of relatively long spines distally.

Female genitalia (Fig. 48). Ostium bursae thinly sclerotized. Ductus bursae membranous in posterior fourth, sclerotized and ribbed anteriorly. Corpus bursae elongate; signum rather small.

Holotype. ♂, Taichung Hsien, Mt. Anmashan (2,100 m), 12. i. 1992 (K. Yazaki), in NSMT. Paratypes. Taiwan — Hualien Hsien, Tayuling (2,600 m), 1 ♂, 12-14. iii. 1985 (K. Yazaki); Hualien Hsien, Losao (1,110 m), 1 ♀, 2. iv. 1984 (S. Sugi), in KY. China — N. Yunnan, Likiang: 4 ♂ 3 ♀, 23-29. iii. 1934, 6 ♂ 1 ♀, 5-29. iv. 1934, 5 ♂ 2 ♀, 8-12. v. 1934, 1 ♀, 23. vii. 1934, 1 ♂, 27. x. 1934, 1 ♂ 1 ♀, 4-18. xi. 1934, 14 ♂ 6 ♀, 17-31. iii. 1935, 5 ♂ 3 ♀, 2-4. iv. 1935 (H. Höne), in MAK and KY.

Distribution. Taiwan, China (N. Yunnan).

In addition to the difference in expanse described above there are slight differences in appearance between Taiwanese and Chinese specimens. In Chinese specimens the frons has white band much broader, and the discal dot and the postmedian row of dots on the forewing are brownish and much smaller. The Chinese population might be separable subspecifically from the Taiwanese one.

***Lomographa lungtanensis* (Wehrli), stat. n. (Fig. 11)**

*Lomographa ochrilinea lungtanensis* Wehrli, 1939, in Seitz, *Gross-Schmett. Erde* 4 (Suppl.): 303, pl. 23, row c.

Easily distinguished from the congeners in Taiwan by its smaller size. Wing maculation fundamentally identical with that of *anoxys*. Characterized by a extremely slender, ochreous terminal line on both wings and very small, sometimes vanished discal dot on forewing.

Male genitalia (Fig. 32). Valva with costa broadly sclerotized, gently raised dorsally at middle. Juxta elongate; posterior margin almost trilobed. Aedeagus long, slender; vesica extremely long, slender, bearing a single cornutus at middle. Eighth tergite deeply bilobed towards extremity, which bears several spines.

Female genitalia (Fig. 49). Ductus bursae long, membranous, with a belt-like sclerite in anterior two-thirds, strongly curved before anterior end. Corpus bursae ovate, membranous, with a belt-like sclerite continued from ductus bursae and a large ovate lobe densely scattered with small spines.

Specimens examined. Lectotype ♂ (Fig. 23), here designated, "China, Prov. Kiangsu, Lungtan bei Nanking, 25. 5. 1933, H. Höne/Bapta *ochrilinea lungtanensis* Wehrli, ♂ Holotype/Genitalia slide KYS-1022", in MAKB. Paralectotype, 1 ♀, same locality as lectotype, 20. 5. 1933 (H. Höne), in MAKB. Taiwan — Nantou Hsien, Lushan Spa (1,200 m): 2 ♂ 1 ♀, 23-24. iii. 1981 (H. Yoshimoto); 1 ♂, 23-24. iii. 1984 (K. Kudo); 1 ♀, 29. iv-1. v. 1984 (H. Yoshimoto). Nantou Hsien, Chun Yang (1,100 m): 1 ♂, 25-26. iii. 1981 (H. Yoshimoto). Nantou Hsien, Nanshanchi: 1 ♂, 26. iii. 1984 (S. Okajima & Y. Iwai). China — Chekiang, E. Tien-mu-shan (1,500 m), 1 ♀, 1931, 1 ♀, April, 1931 (H. Höne).

Distribution. Taiwan, China.

New to Taiwan. This species was originally described from China as a subspecies of *ochrilinea*. The female genitalia evidently show *lungtanensis* to be distinct from *ochrilinea* (= *distans*). The Taiwanese specimens are almost perfectly identical with the type series of *lungtanensis* in appearance and in male and female genitalia.

The most similar species to *lungtanensis* is *L. subspersata* (Wehrli, 1939) from Ussuri and Japan. *L. subspersata* is generally somewhat smaller, and the frons is white in ventral fourth or third, while it is entirely brown in *lungtanensis*. Despite the similarity in appearance *subspersata* is considered to be not so closely related to *lungtanensis* from the male (Fig. 33) and female (Fig. 50) genitalia.

*L. tapaishana* (Wehrli, 1939) (Fig. 12) described from China is also similar to *lungtanensis*, but is much smaller, and the postmedian fascia on both wings is obscurer. The male (Fig.

34) and female (Fig. 51) genitalia of *tapaishana* show a distinctive difference from those of *lungtanensis*. Type specimens of *tapaishana* examined are as follows. Lectotype ♂, here designated, "China, Sued-Shensi, Tapaishan im Tsinling, 22. 6. 1935, H. Höne/Bapta *tapaishana* Wehrli, ♂ Holotype/Genitalia slide KYS-1030", in MAKB. Paralectotypes. Same locality as lectotype, 3 ♂ 3 ♀, 24. vi-2. vii. 1935 (H. Höne), in MAKB and KY.

***Lomographa perapicata* (Wehrli) (Fig. 10)**

*Bapta perapicata* Wehrli, 1924, *Mitt. münch. ent. Ges.* 14: 136, pl. 1, fig. 10.

An unmistakable species with pointed forewing and straightish, oblique brownish transverse fasciae on both wings.

Male genitalia (Fig. 37). Valva relatively long and narrow; costa bearing a thumb-like sclerotized process at distal fifth. A pair of setose, digitate processes arising from posterior margin of juxta. Aedeagus covered with a number of small denticles in apical fourth; vesica with a bunch of short spines, a sclerite bearing a row of denticles, and a thinly sclerotized belt-like plate.

Specimens examined. Holotype ♂ (Fig. 13), "S. China, Lienping, Coll. Wehrli/Bapta *Acrobapta perapicata* Wehrli, ♂ Holotype/0362/Genitalia slide KYS-1019", in MAKB. Central Mountains [Taiwan], 1 ♂, 1959 (exact locality and date unknown).

Distribution. Taiwan, China.

New to Taiwan. This is one of the rarest species in *Lomographa* in Taiwan. I have examined only one male specimen in very poor condition. Besides the holotype there is only one specimen secured from China in MAKB (Dr Stünig's *pers. comm.*).

***Lomographa percnosticta* sp. n. (Fig. 14)**

*Lomographa atrinotapex*: Inoue, 1978: 227, fig. 56; Chang, 1990: 96, fig.; Inoue, 1992: 112 (nec Joannis, 1929).

Very similar to *L. atrinotapex* (Joannis) (Fig. 15) from N. Vietnam. Distinguished from it by obscurer postmedian fascia on forewing and by the narrower terminal white area on both wings.

Male genitalia (Fig. 35). Uncus with a dorsal bulge at base as in *atriinotapex* (Fig. 36). Valva longer and narrower than in *atriinotapex*. Aedeagus slenderer; cornutus of a small sclerite with two denticles, while in *atriinotapex* it is of a larger conical process with acutely pointed apex. Coremata wanting as in *atriinotapex*.

Female genitalia (Fig. 52). Ductus bursae sclerotized, ribbed in anterior half. Corpus bursae ovate, membranous; signum ovate with serrate margin.

Holotype. ♂, Nantou Hsien, Lushan Spa (1,200 m), 24-27. viii. 1893 (H. Yoshimoto), in NSMT. Paratypes. Same data as holotype, 2 ♂ 1 ♀; Taoyuan Hsien, Paling, 1 ♂, 17-19. viii. 1984 (Y. Kishida), in KY.

This species has been regarded as *atriinotapex* since Inoue (1978) recorded it from Taiwan. The description stated above on the male genitalia of *atriinotapex* is based on a specimen secured from Thailand (Nakhon Nayok, Khao Yai 800 m, 17. vii. 1991, M. Tanida leg.)

which matches well in appearance with the photograph of a female syntype of *atrinotapex*. No female specimen of *atrinotapex* was available for this study.

***Lomographa platyleucata marginata* (Wileman) (Fig. 16)**

*Bapta marginata* Wileman, 1914, *Entomologist* 47: 201.

*Lomographa marginata*: Chang, 1990: 279, fig.

*Lomographa platyleucata marginata*: Inoue, 1992: 112.

*Bapta poliotaeniata* Wehrli, 1936, *Ent. Rdsch.* 53: 514, fig. 5. **Syn. n.**

Distinguished from the congeners by broad transverse fasciae on both wings.

Male genitalia (Fig. 38). Uncus rather stout, with a dorsal bulge at base. Valva relatively long and narrow; a large basal plate-like sclerite bearing several denticles along its dorsal and distal margins. Posterior portion of juxta simple. Aedeagus vesica with a lightly sclerotized, finely scobinated basal patch; cornutus absent. Coremata wanting.

Female genitalia (Fig. 53). Ductus bursae sclerotized, ribbed in anterior two-thirds. Corpus bursae ovate; signum large, elliptical, with serrate margin.

Specimens examined. Holotype ♀ of *poliotaeniata* (Fig. 17), "Tien-Tsuen, Chasseurs indigènes, du P. Dejean, 1903/Bapta poliotaeniata Wehrli, ♀ Holotype/Genitalia slide KYS-1036", in MAKB. Taiwan — Nantou Hsien, Lushan Spa (1,200 m): 1 ♂ 2 ♀, 7-9. xi. 1983 (K. Yazaki); 2 ♂, 30. vii-1. viii. 1984 (K. Yazaki). Chiayi Hsien, Mt. Alishan (2,200 m): 4 ♂, 2-5. viii. 1984 (K. Yazaki). China — Fukien, Kuatun (2,300 m), 1 ♂, 2. v. 1938 (J. Klapperich).

Distribution. India, Nepal (subsp. *platyleucata*); China (Sichuan, Fukien), Taiwan (subsp. *marginata*).

This species is considered to be related to *percnosticta* and its relatives by having a dorsal bulge at the base of uncus, lacking the coremata, and the similarity of female genitalia.

*Marginata* had been regarded as an endemic species to Taiwan until Inoue (1992) treated it as a subspecies of *L. platyleucata* (Walker, 1866) from the Himalayas. In appearance *platyleucata* (s. str.) has the transverse fasciae on both wings slightly less broad and more obvious than in *marginata*. In the male genitalia *platyleucata* (s. str.) (Fig. 40) is slightly different from *marginata* in lacking denticles on the dorsal margin of the basal sclerite of valva, and in having a rather strongly sclerotized horn-like process on the posterior margin of eighth sternite.

*Bapta poliotaeniata* Wehrli, 1936, described from Sichuan, China upon three females, is almost identical with *marginata* in appearance and the female genitalia. Therefore *poliotaeniata* is here sunk into *marginata* as a junior synonym. A male specimen from Fukien, China is also considered to represent *marginata*.

Another related species, *Bapta asynapta* Wehrli, 1939 (Figs 18, 24) was described on a series of specimens from Tapaishan (Shensi), China. It is nearly identical in the male (Fig. 39) and female (Fig. 55) genitalia with *platyleucata* (s. str.), and the facies is also similar to *platyleucata* (s. str.), but the median and postmedian fasciae on the forewing are narrower and less obvious. Thus I treat here *asynapta* as a subspecies of *platyleucata* (**stat. n.**). Type series of *asynapta* examined are as follows. Lectotype ♂, here designated, "China,



Sued-Shensi, Tapaishan im Tsinling, 24. 6. 1935, H. Höne/Bapta asynapta Wehrli, ♂ Holotype/Genitalia slide KYS-1033", in MAKB. Paralectotypes: same data as holotype, 1 ♂; same locality as lectotype, 1 ♀, 19. vi. 1935 (H. Höne), in MAKB.

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## 摘 要

台湾の *Lomographa* 属 (ジャクガ科・エダジャク亜科) (矢崎克己)

これまで台湾の *Lomographa* 属は、特産の2種を含めて6種が知られていた (Inoue, 1992). 本報では3未記録種を新たに加え、3新種を含む10種を記録した。

*L. inamata* (Walker) マエキシロエダジャク: インドから台湾、日本に分布する。スンドラランドのものは最近別種 *L. luciferata* (Walker) として分離された (Holloway, 1993).

*L. margarita* (Moore): インドから台湾に分布する。台湾の特産種とされていた *conspersa* Wileman は本種のシノニム。

*L. anoxys* (Wehrli): 台湾ではもっとも普通に採れる種。従来 *distans* Warren としていたのは誤同定。インドから中国にも広く分布し、個体数も比較的多い。

*L. claripennis* Inoue オオフタスジシロエダジャク: 日本の特産種であったが、初めて台湾から記録された。2♀しか採れていない。

*L. rara* Yazaki: Sungkang 産の1♂で記載した新種。前種に多少似ているが、前・後翅の横脈紋が大きいことで区別できる。

*L. guttulata* Yazaki: 台湾産の2♂1♀と中国 (雲南省) 産の36♂17♀で記載した新種。前翅の大きな横脈紋と、黒点列からなる外横線によって識別は容易。

*L. lungtanensis* (Wehrli): 中国 (江蘇省) から記載された種で, 台湾からは初めて記録される. 外観は日本のウスフタスジシロエダシャクに非常によく似ているが, 雌雄交尾器はまったく異なる.

*L. perapicata* (Wehrli): 台湾初記録種. ほとんど鱗粉の脱落した 1 ♂しか採れていない. 中国 (広東省) 産の 1 ♂で記載されたもので, Bonn の博物館にも holotype 以外には 1 匹しかないという珍品.

*L. percnosticta* Yazaki: 従来ベトナムから記載された *atrinotapex* Joannis とされていたが, 明らかに別種であったので新種として記載した.

*L. platyleucata marginata* (Wileman) ミツオビシロエダシャク: 和名は松村 (1931) による. Inoue (1992) によってインドの *platyleucata* の亜種とされた. この亜種は中国の四川省や福建省にも分布している. また陝西省から記載された *asynapta* Wehrli は本種の別亜種と考えられる.

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